

Work Order ID 130287

130287

Page 1

Wednesday, March 04, 2015 7:55:09 AM

Item ID: D135-751-011 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube with Standard Wearplates Fits LH or RH
 Start Date: 3/4/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 3/4/2015 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 15-03-04 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start *NR1*
 Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3507	Rev D								
DSI 9661	A								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D135-751-011								

DAS
26
9-89

SMAY MLJ

DAS
28
9-89

JUN 0 1 2015

B130287

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
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Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
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Work Order ID 130287***130287***

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Item ID: D135-751-011

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

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Cust Item ID:

Required Date: 3/4/2015 Req'd Qty: 1.00 ***1***

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

0.00

120

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1-Cut Aft end as per dwg D3507

2-Deburr ends *DGC 15-3-4*

3-Drill Aft & Fwd Cap holes using DT8678 & DT8901

4-Locate DT8870 & Drill Ground wire hole on top of Tube.

5-Locate DT8870 with #30 cleco in Ground wire hole, then Pilot Drill all X-Bolt holes using #30" drill. ****DO NOT OPEN AFT CAP HOLES****

6-Open crossbolt holes to 0.3125" (3 per side). Drill pilot holes for wearplates using Dt8868, Use DT8892 FOR REAR WEARPLATE HOLES.

8-Open six rear wearplate holes using DT8892. Open all wearplate holes to 0.297"

9-Open ground wire hole .297" section E-E

10-Open Aft & Fwd Cap holes using .208" drill.

11-Bore out aft end of tube as per Dwg D3507 & Detail "B".

12- Section G-G holes must be laid out manually, open to #30.

13-Deburr holes.

*DGC 15-3-5**15-3-5*

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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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130287

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N900040100

Setup Start ***NS1***

Stop *NS2*

Start Date: 3/4/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 3/4/2015 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Accept Qty	Reject Qty	Reject Number	Insp. Stamp

0.00

140

QC

Memo

0.00

Quality Control

① 15-03-06

DA8
- 9
9-89

0.00

150

HandFinish

Memo

0.00

Hand Finishing

1 15-3-6

**DAS
18
8-89**

0.00

160

QC

Memo

0.00

Quality Control

1 0 15-03-09

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Wednesday, March 04, 2015 7:55:09 AM

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Page 4

Item ID: D135-751-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 3/4/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170		0.00							
170	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Open X-Bolt holes to .375" (1 Places) & .500" (2 Places) as per Dwg D3507. and section G-G to .750" (2 places)								
	2-Counter Sink X-BOLT holes as per Dwg D3507								
	3-Deburr and blow out chips from inside of tube.								
	4-Bond web as per Dwg D3507 & OSI 015 A/R 241 Sike Flex Batch: <u>131574</u> Exp Date: <u>15-10-21</u> start time: <u>8:40</u> end time: <u> </u>								
	5-Weld x-bolt spacers as per Dwg D3507 and Detail C-C & D-D and G-G A/R AL ROD Batch: <u>M130137</u>								
	6-Grind welds flush								
	7-Drill Rivet Holes as per Dwg D3507 Using Dt8871A&B								
	8-Deburr Rivet holes.								

15-3-924

3 BE1503-16

DQA: _____ Date: _____



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Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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Work Order ID 130287

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Wednesday, March 04, 2015 7:55:09 AM

Item ID: D135-751-011

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 3/4/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC10- Inspect visual per QSI004- ground welds	0.00				1			JB
180									
QC	Memo	0.00							
Quality Control									15-03-18
190		0.00							
190									
Skidtubes	Skidtubes	0.00				1	0		BE
	Memo								15-03-18
Skidtubes	1-Rivet D3506-1/-3 as per Dwg D3507.								
200	QC5- Inspect part completeness to step on W/O	0.00							
200									
QC	Memo	0.00							
Quality Control									

DAS
9
9-89

DQA: _____ Date: _____



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Stop *NR2*

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210 Pressure Wash per QSI005 4.3

0.00

210

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

15-4-7

220

0.00

220

SprayPaint

Memo

0.00

Spray Painting

1- Apply Primer as per QSI 005 4.2.1.3.3 and dwg

A/R Primer Batch: 130992

2- Paint two coats of White paint as per QSI 005 4.2 and dwg

A/R Paint Batch: 132024

DAS

41

9-89

15-4-19

230

QC14- Inspect Spray Paint

0.00

230

QC

Memo

0.00

Quality Control

1x of 11 15/04/27

88-8
81
840

DQA: _____ Date: _____



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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 130287

Wednesday, March 04, 2015 7:55:09 AM

130287

Page 7

Item ID: D135-751-011 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube with Standard Wearplates Fits LH or RH
 Start Date: 3/4/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 3/4/2015 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	HandFinishing	0.00							
260	HandFinish	0.00							
Hand Finishing	Memo								
	1- Install Wearplate & Ground Wire inserts as per Dwg D3507.								
	1-Inspect for Foreign objects								
	2-Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"								
	A/R 241 Sika Flex Batch: <u>11131574</u>								
	Exp Date: <u>12/10</u>								
	3-Install Wearplates as per Dwg D3507 ,								
	Note:Install (1) Bolt and (1) washer on Ground Wire insert on top of tube								
	Do not Install Scews where indicated on Dwg(Note #6)								
	A/R 241 Sika Flex Batch: <u>11131574</u>								
	Exp Date: <u>12/10</u>								
	4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube								
	A/R 55-o'ring lube batch: <u>14131349</u> RTU 598 11132017 15103								
	5- Wing Walk as per Dwg D3507 and QSI 005 4.4								
	Batch: <u>11132039</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Page 8

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 130287

Wednesday, March 04, 2015 7:55:09 AM

130287

Page 9

Item ID: D135-751-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube with Standard Wearplates Fits LH or RH
 Start Date: 3/4/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 3/4/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
300	Packaging	0.00							
300									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D135-751-011								
	Location: <u>071</u>								
	PPP Rev: _____								
310	QC21- Final Inspection - Work Order Release	0.00							
310									
QC	Memo	0.00							
Quality Control									

JUN 01 2015

DAS
6
9-88

15/6/12 *[Signature]*

[Signature] 6-01

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Picklist Print

Wednesday, March 04, 2015 7:55:13 AM

Page 1

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A06-06-21New Issue JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC verf DD IPP Rev E
 10.02.22 per pAR 09-043 EC verified by: DD IPP Rev:F 10.06.09
 remove seq110 DD verf:EC IPP Rev G 10.09.17 added
 D3507-1-bent EC verified by:DD IPP REV:H 13.12.11 ECN13-619/
 CHG002 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS7-1032-130	AELS8-1032-130	Purchased	No				Each	6,426.000		38			

ALS7-1032-130

Rivnut

all 15/04/27

Location	Loc Qty	Loc Code
CA	6	
M128649	6	
CCK003	6320	
M128649	6320	x32
FG	100	
121444	100	

D3507-1-BENT

Manufactured

No

120

Each

2.0000

1

1

D3507-1-BENT

Skidtube Assembly EC135

Location	Loc Qty	Loc Code
LG002	2	
115439	2	

D3504-1

Manufactured

No

170

Each

6.0000

2

2

D3504-1

Crossbolt Spacer

Location	Loc Qty	Loc Code
LG001	6	
99007	6	

Doc 15-3-4

BE15-03-16
8130424 x2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Picklist Print

Page 2

Wednesday, March 04, 2015 7:55:13 AM

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

D3504-3 Manufactured No 170 Each 58.0000 1 1

D3504-3

Crossbolt Spacer

BE15-03-16

Location

Loc Qty

Loc Code

LG001

58

105604

51

31232

7

D3504-5 Manufactured No 170 Each 9.0000 2 2

D3504-5

Crossbolt Spacer

BE15-03-16

Location

Loc Qty

Loc Code

LG001

9

106024

9

D3505-1 Manufactured No 170 Each 5.0000 1 1

D3505-1

Web

15-3-9

Location

Loc Qty

Loc Code

LG002

5

112204

5

D3506-1 Manufactured No 190 Each 11.0000 4 4

D3506-1

Doubler

BE15-03-18

B130357-4

Location

Loc Qty

Loc Code

LG001

11

106261

11

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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Picklist Print

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Wednesday, March 04, 2015 7:55:13 AM

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

D3506-3 Manufactured No

190 Each 13.0000 2 2

D3506-3

Doubler

BE 15-03-18
B13116541

Location

Loc Qty

Loc Code

LG001

13

51790

13

MS20601-AD4W3

Purchased No

190 Each 574.0000 12 12

MS20601-AD4W3

Rivet

BE 15-03-18

Location

Loc Qty

Loc Code

CCK004

466

m131618

466

ST308

108

114538

18

m131340

90

ALS4-1032-225

AELS8-1032-225 Purchased No

260 Each 2,269.000 1 1

ALS4-1032-225

Rivnut

all 15/04/20

Location

Loc Qty

Loc Code

FG

120

M127028

120

FP001

41

M131067

41

st549

2108

M131582

2108

X1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Wednesday, March 04, 2015 7:55:13 AM

130287

D135-751-011

Required Date: 3/4/2015

Required Qty: 1.00

31

$$H_{\text{stock}} =$$

Loc Code

Abstract

831

2.

all is good

Loc Code

11131803

v 2

2.

all 13/08/12

Loc Code

X7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
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Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Wednesday, March 04, 2015 7:55:13 AM

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

D2965 Manufactured No 260 Each 112.0000 1 1

D2965

Cap

all 15/04/27

Location

Loc Qty

Loc Code

FP001

112

127852

103

99551

9

x2

D2965-3 Manufactured No 260 Each 108.0000 1 1

D2965-3

Cap

all 15/04/27

Location

Loc Qty

Loc Code

FP001

108

120969

7

126369

96

98923

5

x1

D3492-1 Manufactured No 260 Each 181.0000 4 4

D3492-1

Plug

all 15/04/27

Location

Loc Qty

Loc Code

FP001

181

128509

60

128955

121

B137113

x4

D3492-3 Manufactured No 260 Each 149.0000 4 4

D3492-3

Plug

all 15/04/27

Location

Loc Qty

Loc Code

FP001

149

125905

2

128476

8

128914

139

B131036

x1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Picklist Print

Wednesday, March 04, 2015 7:55:13 AM

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

D3492-7

Manufactured No

260

Each

104.0000

2

2

D3492-7

Plug

**

all 15/04/27

Location

Loc Qty

Loc Code

FP001

104

106110

100

86759

4

X2

D4918-047

Manufactured No

260

Each

5.0000

1

1

D4918-047

Wearplate Aft

**

all 15/04/27

Location

Loc Qty

Loc Code

FP001

4

123667

4

ST609

1

119894

1

B128771

X1

D4918-1

Manufactured No

260

Each

10.0000

1

1

D4918-1

Wearplate Fwd

**

all 15/04/27

Location

Loc Qty

Loc Code

FP001

8

112525

2

113348

6

FP002

2

119891

2

X1

D4918-3

Manufactured No

260

Each

6.0000

1

1

D4918-3

Wearplate Center Fwd

**

all 15/04/27

Location

Loc Qty

Loc Code

FP002

6

112352

2

113301

4

u

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
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Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____ _____
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Wednesday, March 04, 2015 7:55:13 AM

Page 8

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

260

Each

204.0000

4

4

NAS1611-010

O-RING

**

ll 130287

Location

Loc Qty

Loc Code

FP001

204

m130797

4

M130770

kd

m131618

200

NAS1611-013

Purchased

No

260

Each

582.0000

4

4

NAS1611-013

O-RING

**

ll 130287

Location

Loc Qty

Loc Code

FP001

582

m130758

582

kd

AN3C4A

Purchased

No

280

Each

1,700.000

8

8

AN3C4A

Bolt

**

**DAS
6
9-89**

**DAS
27
9-89**

Location

Loc Qty

Loc Code

FG

20

122814

20

ST338a

1680

131677

500

M128879

2

M131320

178

M131420

1000

8

D3512-041

Manufactured

No

280

Each

1.0000

2

2

D3512-041

Wearplate

**

**DAS
27
9-89**

MAY 28 2015

Location

Loc Qty

Loc Code

st612

1

125607

1

BB1477

2

Wednesday, March 04, 2015 7:55:13 AM

Shop Packet Print

Page 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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Picklist Print

Wednesday, March 04, 2015 7:55:13 AM

Work Order ID: 130287

130287

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube with Standard Wearplates Fits LH or RH

Start Date: 3/4/2015

Required Date: 3/4/2015

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0332R

Purchased

No

280

Each

7,684.000

8

8

NAS1149C0332R

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

2155

m130325

2140

m130466

15

GA

2

125654

2

ST260a

3000

m131697

3000

ST271

2527

125654

30

m131340

497

m131618

2000

DAS
6
9-89

DAS
27
9-89

MAY 28 2015

8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Doc/Data									
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Training									
Transport									
Unapproved									

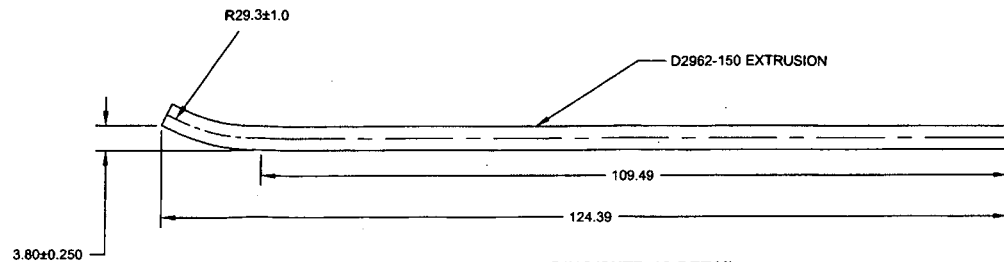
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

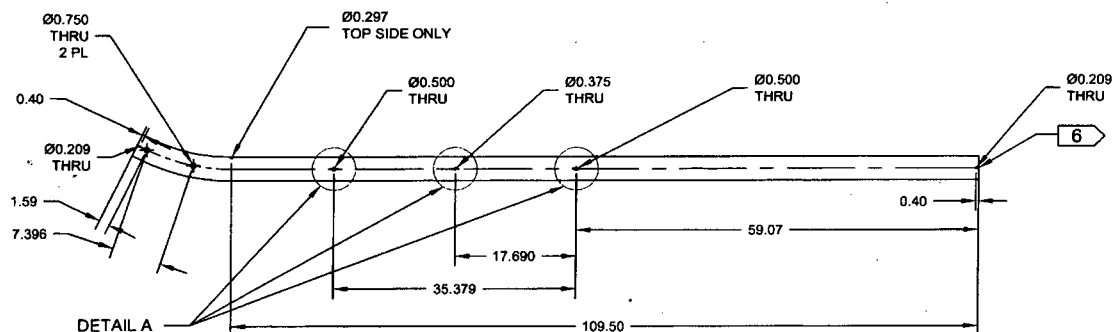
Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2965	CAP
1	D2965-3	CAP
4	D3492-041	PLUG ASSEMBLY
4	D3492-043	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
2	D3504-5	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3508-1	DOUBLER
2	D3508-3	DOUBLER
1	D4918-1	WEARPLATE
1	D4918-3	WEARPLATE
1	D4918-5	WEARPLATE
1	D4918-047	WEARPLATE
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
31	AN3C4A	BOLT
2	AN3C5A	BOLT
2	AN526C1032-10	SCREW
33	AN960C10L	WASHER
12	MS20601AD4W3	RIVET

GENERAL NOTES:

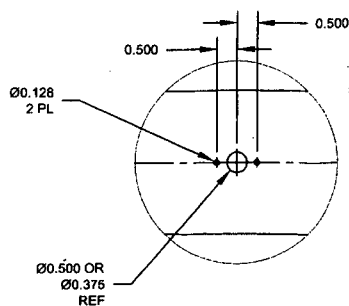
- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3505-1 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2.
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3.
BLACK ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTERLINE PER DART QSI 005 4.4 (OPTIONAL)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART B/N PER DART QSI 044 6.4 (VIBRATING STYLUS) ON I.D. OF TUBE
- 7) WEIGHT: 24.1 LB (FROM IIN-D135-751)
- 8) WELDING TO BE DONE PER DART QSI 004
- 9) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 AFTER BENDING
- 10) USE DART DRILL TEMPLATE DT8968 TO LOCATE AND DRILL Ø0.297 HOLES (38 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/291.
- 11) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS



D3507-1 BENDING/CUTTING DETAIL



D3507-1 DRILLING DETAIL



DETAIL A
TYP, 6 PL
SCALE 3:10

D	REMOVE D3558-X GASKETS, D4918-X WAS D3508-X REVISE FINISH TO ADD PAINT AS THE PREFERRED FINISH. REVISED NOTES	DW	13.08.30
C	ADD D3504-5, FOR SKID GEAR DEFLECTOR; CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW	DC	07.09.19
B	ADD GASKET, CHANGE HARDWARE MAT'L	PH	06.11.01
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE USA, INC	
DRAWN	DW	KENT, WA	
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	D3507	SHEET 1 OF 2
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	EC 135 SKIDTUBE	NTS
DATE	13.08.30	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

COPY
130287 ML5
1502-04

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

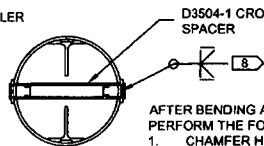
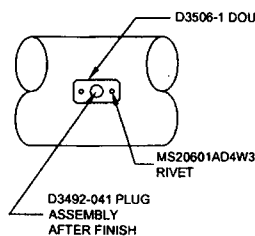
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

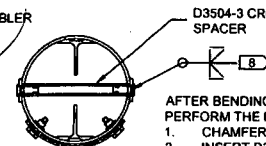
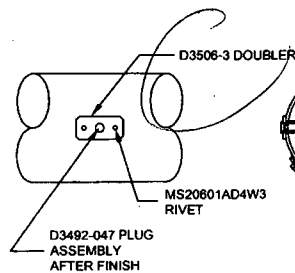
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other



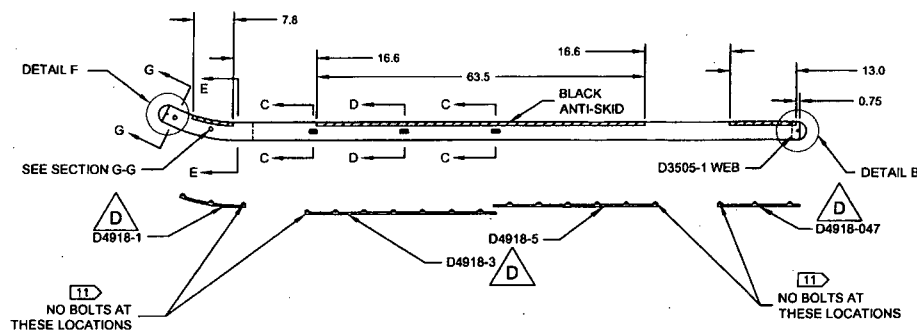
SECTION C-C
(SCALE 3:10)

- AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.500 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-1 CROSS BOLT SPACER 2 PL
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.404 (7" DRILL) THRU HOLE
 5. INSTALL D3506-1 DOUBLER 4 PL USING MS20601AD4W3 RIVET 8 PL
 6. AFTER FINISH, INSTALL D3492-041 PLUG ASSEMBLY 4 PL

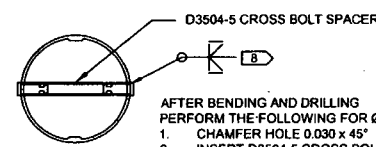


SECTION D-D
(SCALE 3:10)

- AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-3 CROSS BOLT SPACER 1 PL
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.277 (7" DRILL) THRU HOLE
 5. INSTALL D3508-3 DOUBLER 2 PL USING MS20601AD4W3 RIVET 4 PL
 6. AFTER FINISH, INSTALL D3492-047 PLUG ASSEMBLY 2 PL

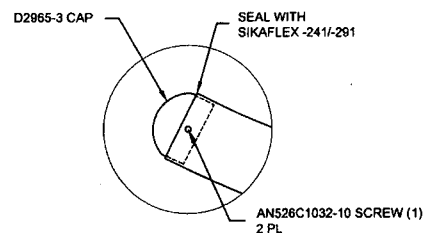


D3507-041 ASSEMBLY DETAIL

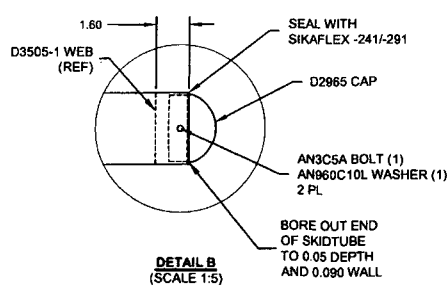


SECTION G-G
(SCALE 3:10)

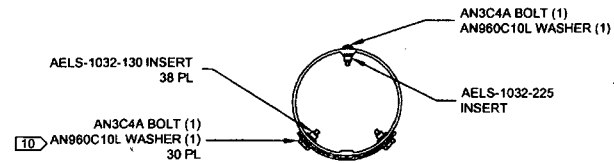
- AFTER BENDING AND DRILLING
PERFORM THE FOLLOWING FOR Ø0.750 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-5 CROSS BOLT SPACER 2 PL
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.594 (19/32 DRILL) THRU HOLE
 5. AFTER FINISH, INSTALL D3492-043 PLUG ASSEMBLY 4 PL



DETAIL F
(SCALE 1:5)



DETAIL B
(SCALE 1:5)



SECTION E-E
(SCALE 3:10)

DESIGN	DW	DART AEROSPACE USA, INC	
DRAWN	DW	KENT, WA	
CHECKED	GP	DRAWING NO.	REV. D
MFG. APPR.		D3507	SHEET 2 OF 2
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	EC 135 SKIDTUBE	NTS
DATE	13.08.30	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC	
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RELEASED
2013-12-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D135-751 REV. C
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D135-751 REV. 2

REF. FAA STC: SR01709SE

REF. EASA STC: EASA.IM.R.S.01278

PURPOSE:

THE D135-751-043 WEARPLATE KIT AT CHG 002 CONTAINS WEARPLATES WITH AN IMPROVED WEAR PATTERN AND A COATING THAT ELIMINATES THE NEED FOR THE RUBBER GASKETS. THE D135-751-011 SKIDTUBE INSTALLATION AT CHG 002 AND D135-751-041 REPLACEMENT SKIDTUBE AT CHG 002 CONTAIN THE NEW WEARPLATES.

THE DSI 9661-011 WEARPLATE UPGRADE KIT IS AVAILABLE TO UPGRADE EXISTING D135-751-011 KITS AT CHG 001 WITH IMPROVED AFT WEARPLATES.

CHANGE:

FOR D135-751-011/-041/-043 KITS AT CHG 002, THE WEARPLATE INSTALLATION PROCEDURE OF ICA-D135-751 SECTION 32.3 IS REVISED AS FOLLOWS. IF INSTALLING THE DSI 9661-011 WEARPLATE UPGRADE KIT, THE PARTS SHOULD BE INSTALLED USING THE FOLLOWING INSTRUCTION.

32.3 WEARPLATE REPLACEMENT

IF REINSTALLING D3508-X WEARPLATES ON D135-751-011/-041 KITS AT CHG 001, THE WEARPLATES SHOULD BE INSTALLED WITH D3558-X GASKETS PER ICA-D135-751 REV. 2. FOR D135-751-011/-041/-043 KITS AT CHG 002, THE WEARPLATES SHOULD BE INSTALLED WITHOUT GASKETS, AS INDICATED BELOW. IF D4918-X WEARPLATES ARE BEING INSTALLED ON D135-751-011/-041 SKIDTUBES AT CHG 001, THEY SHOULD LIKEWISE BE INSTALLED WITHOUT GASKETS AS INDICATED BELOW.

32.3.1 REMOVE WEARPLATES AND GASKETS (IF PRESENT) BY REMOVING THE AN3C BOLTS THAT SECURE THEM TO THE BOTTOM OF THE SKIDTUBE.

32.3.2 CHECK FOR CORROSION AND MECHANICAL DAMAGE IN ACCORDANCE TO CHAPTER 5 AND REPAIR AS REQUIRED. REFINISH BOTTOM OF SKIDTUBE PER CHAPTER 5 OF ICA-D135-751.

32.3.3 INSTALL REPLACEMENT D4918-1/-3/-5/-047 WEARPLATES USING AN3C BOLTS AS APPLICABLE AS SHOWN IN FIGURE 1 OF THIS SERVICE INSTALLATION. INSTALL (QTY 2) D3512-041 WEARPLATES (ITEM 27) OVER FWD AND AFT CLAMPS AS SHOWN IN FIGURE 1 USING AN3C BOLTS AND AN960C10L WASHERS. TORQUE BOLTS 15-25 IN-LB (1.7-2.8 N-m). SEAL WEARPLATE INSERTS USING SIKAFLEX-241/-291 OR PROSEAL 890 MIL-S-8802 CLASS B2 SEALANT.

WEIGHT AND BALANCE:

USE THE FOLLOWING WEIGHT AND BALANCE INFORMATION FOR DART D135-751-011 SKIDTUBE INSTALLATION AT CHG 002.

INSTALLATION	WEIGHT	LATERAL		LONGITUDINAL	
		ARM	MOMENT	ARM	MOMENT
D135-751-011 CHG 002 Skidtube Installation	24.5 lb 11.2 kg	±39.4 in ±1.0 m	±966 in-lb ±11.2 m-kg	147.1 in 3.7 m	3604 in-lb 41.5 m-kg

A	NEW ISSUE	DW	13.08.21
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE USA, INC KENT, WA	
DRAWN	DW		
CHECKED	<i>UP</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>N/A</i>	DSI 9661	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	REVISED WEARPLATE KIT	NTS
DATE	13.08.21	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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PARTS LIST:

THE PARTS LISTS IN SECTION 32.9 OF ICA-D135-751 (PAGE 35) AND SECTION 5.0 OF IIN-D135-751 (PAGE 11) ARE AMENDED AS FOLLOWS FOR D135-751-011 @ CHG 002 AND LATER.

32.9 PARTS LIST (ICA-D135-751)**5.0 PARTS LIST (IIN-D135-751)**

Item	QTY -011	QTY -041	QTY -043	PART NUMBER	DESCRIPTION
	X			D135-751-011	SKIDTUBE INSTALLATION
	1	X		D135-751-041	REPLACEMENT SKIDTUBE
			X	D135-751-043	WEARPLATE KIT

IS:

20A	1		1	D4918-1	WEARPLATE (REPLACES D3508-1)
21A	1		1	D4918-3	WEARPLATE (REPLACES D3508-3)
22A	1		1	D4918-5	WEARPLATE (REPLACES D3508-5)
23A	1		1	D4918-047	WEARPLATE (REPLACES D3508-7)
27	2		2	D3512-041	WEARPLATE (REPLACES D3512-1)

WAS:

20A	1		1	D3508-1	WEARPLATE
20B	1		1	D3558-1	GASKET
21A	1		1	D3508-3	WEARPLATE
21B	1		1	D3558-3	GASKET
22A	1		1	D3508-5	WEARPLATE
22B	1		1	D3558-5	GASKET
23A	1		1	D3508-7	WEARPLATE
23B	1		1	D3558-7	GASKET
27	2		2	D3512-1	WEARPLATE

THE PARTS LIST FOR THE DSI 9661-011 KIT IS AS FOLLOWS:

QTY -011	PART NUMBER	DESCRIPTION
X	DSI 9661-011	WEARPLATE UPGRADE KIT
1	D4918-047	WEARPLATE
2	D3512-041	WEARPLATE

DESIGN	DW	DART AEROSPACE USA, INC KENT, WA	
DRAWN	DW		
CHECKED	<i>AP</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>N/A</i>	DSI 9661	SHEET 2 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.		REVISED WEARPLATE KIT	NTS
DATE	13.08.21	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td style="width: 33%;"> Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ </td> <td style="width: 33%;"> Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ </td> <td style="width: 33%;"> Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ </td> <td style="width: 33%;"> Engineering ☐ Quality ☐ Other ☐ </td> </tr> </table>	Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐	Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐
Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐	Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐	Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Other	Other
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread	☐ Pressure/Forced
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set	☐ Set-up
☐ Turning Sequence	☐ Finish	☐ Out of Calibration	☐ Temperature/Cure
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence	☐ Weld
			☐ Wrong Stock Pulled
			☐ Other

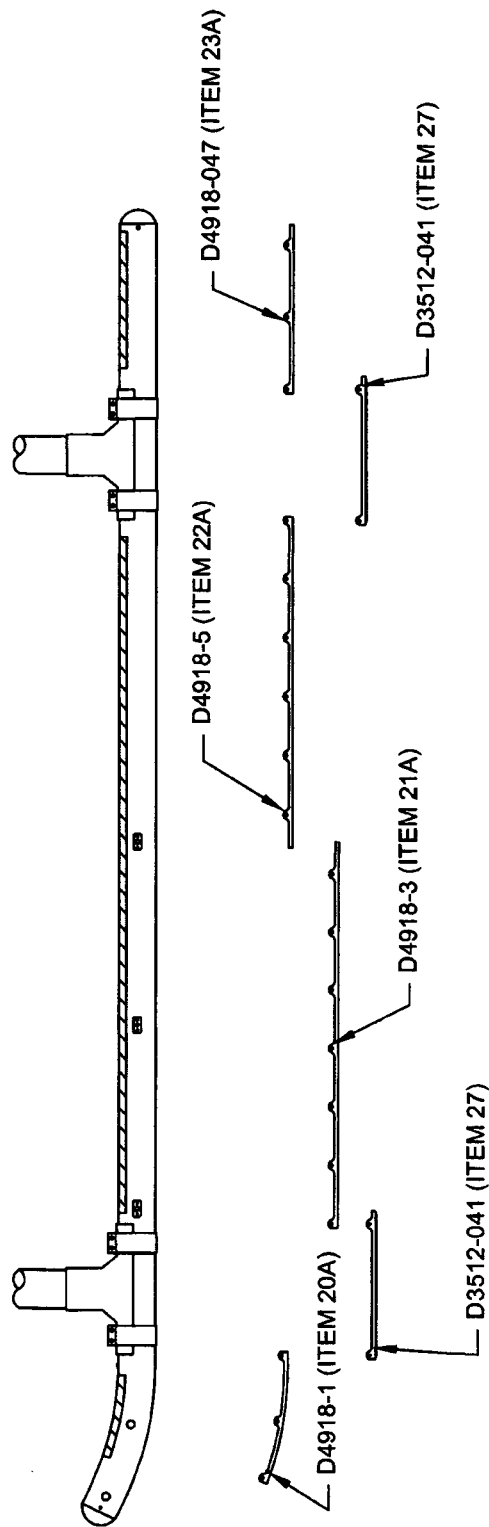


FIGURE 1: WEARPLATE INSTALLATION

DESIGN	DW	DART AEROSPACE USA, INC KENT, WA	
DRAWN	DW		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9661	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	REVISED WEARPLATE KIT	NTS
DATE	13.08.21	COPYRIGHT © 2013 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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